NATIONAL LIBRARY of MEDICINE

NEWS

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Message from the Director

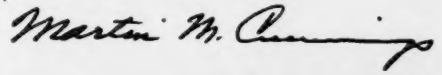
Nineteen eighty was a year filled with important events for the National Library of Medicine. Foremost among them was the dedication of the Lister Hill Center building. Only those few who have been involved in the construction of a major Federal facility can know the myriad details that must be attended to, the uncertainties of funding, the intricate web of approvals and clearances required by a complex bureaucracy. Nevertheless, these have all been successfully negotiated and we owe a debt of gratitude to the many people who have worked long and hard to achieve the completion of the Center: the Library's staff, the Board of Regents, officials of the National Institutes of Health, supporters within the Congress, and the many friends of the Library within the health-science community at large. Their decade-long efforts have culminated in a new facility to be devoted to developing improved biomedical communications methods and systems.

The development of an improved automation system—MEDLARS III—begun last year, made significant advances in 1980. After the basic principles of the new system were approved by the Library's Board of Regents, the concept was presented at a series of meetings with members of the library and health-sciences communities to solicit their views. By September, detailed functional requirements were complete and a team of systems analysts was being assembled to develop the actual specifications for development and implementation. The MEDLARS III Task Force members, who have accomplished all this in addition to their regular duties in the Library, deserve special recognition.

NLM's online bibliographic retrieval network continues to expand. There are now almost 1300 user institutions in the United States. Over 1.8 million searches were performed in 1980. POPLINE, a new file containing 70,000 citations to the literature of population and family planning, was added to the network late in the year. The Swiss Academy of Medicine became an international MEDLARS partner in June and is now regularly accessing NLM's computers in Bethesda.

The MEDLARS system was significantly upgraded in 1980 with the acquisition of two IBM 370/168 computers. With the increased speed of these computers and the greater capacity they afford, the system can handle approximately three times the previous workload of publications production and online searching.

I would like to thank the staff of the Library who, although fewer in number than any time recent years, have by their diligence and effort made real progress possible in 1980. I send them, the readers of the *NLM News*, and our friends everywhere in the biomedical community, best wishes for the holiday season and the coming year.



Martin M. Cummings, M.D.

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NATIONAL LIBRARY of MEDICINE
NEWS

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Serial Gap List

NLM is soliciting the help of the medical library community in filling gaps in our serial collections. If you can provide any of these items we would be most grateful. Please address them to:

National Library of Medicine
TSD—GAPS
Bethesda, Maryland 20209

Alcoholism 3: 2, 1979
Clinical Nuclear Medicine 4: 12, 1979
Drug Development and Industrial Pharmacy 5: 1-3, 1979
International Symposium on Early Diabetes Vol. 3, 1975
Issues in Comprehensive Pediatric Nursing 2: 2, 1977
Journal of Pediatric Surgery 13: 6
Journal of Solid-Phase Biochemistry 2: 2, 1977
Long Term Care 7: 1-37, 1978; 8: 6-13, 1979
Modern Veterinary Practice 60: 11, 1979
Moscow University Chemistry Bulletin 33: 1-2, 1978
Orthopaedic Survey 2: 2, 1978
Progress in Phytochemistry Vol. 1, 1968
Progress Thru Research 4: 1, 4, 1950; 5: 1-3, 1951; 12: 3, 4, 1958; 13: 4, 1959; 14: 2-4, 1960; 15: 3, 4, 1961; 16: 2-4, 1962; 17: 2-4, 1963; 18: 2-4, 1964; 19: 2-4, 1965; 20: 4, 1966; 21: 3, 4, 1967; 22: 3, 4, 1968
Pulse of Pharmacy 18: 3, 1964
Respiratory Review 2: 1, 1968
Social Work with Groups 1: 2, 1978
Social Work in Health Care 3: 4, 1978

Videocassette Loan Service Begins

Beginning in January a new distribution service will be offered by NLM's National Medical Audiovisual Center (NMAC). For a two-year experimental period, selected videocassette titles tagged in the AVLINE database or the *National Library of Medicine Audiovisual Catalog* will be made available on interlibrary loan to libraries in the U.S. and Puerto Rico. The initial loan collection will consist of 900 titles, and will be expanded as specific requests are received and as resources allow.

The program is intended to be used as support for the selection and acquisition process in health science libraries by providing an opportunity for librarians and faculty to preview the videocassette titles in AVLINE before making a final decision to purchase. Since advance booking is not possible, use of the loan collection for actual curriculum support is not practical.

Users are encouraged to borrow health-related video materials from sources within their Region whenever possible. A videocassette may be requested from NMAC only on a standard ALA Interlibrary Loan request form. This form must generally be sent first to a specially designated resource library within the requester's Region. Since policies vary somewhat among the Regions, potential requesters should first contact their Regional Medical Library or NMAC before making an initial request. Further details on the new service and specific procedures to be followed are outlined in a fact sheet ("NMAC Videocassette Interlibrary Loan") available from NMAC. For a copy, write:

Materials Utilization Branch
National Medical Audiovisual Center
National Library of Medicine
Bethesda, Maryland 20209

Price Change Announced for 1981 AV Catalog Subscription

The Superintendent of Documents has announced a price increase from $18 to $24 per year for the *National Library of Medicine Audiovisuals Catalog*. The $24 subscription price includes three quarterly issues and a casebound annual cumulation which is issued in lieu of a fourth quarterly. Orders should be sent to the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

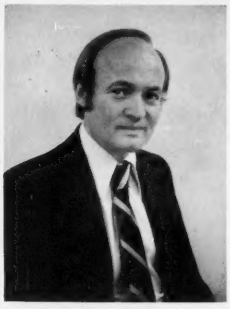
Staff Changes

Technical Services Chief

Betsy L. Humphreys has been named Chief of the Technical Services Division—the component of NLM's Library Operations which includes cataloging, selection/acquisitions, and serials processing. Ms. Humphreys had previously been Deputy Chief of the Division (*News*, January 1980).

A Phi Beta Kappa graduate of Smith College, she received an M.L.S. from the University of Maryland in 1972. Since 1973 she has held a number of increasingly responsible positions within the Technical Services Division, including Assistant Head of the Serial Records Section. She was coordinator of the SERLINE project for several years and in 1978 received the NIH Merit Award for her work on NLM's internal automated serials system. She is a member of the MEDLARS III task force at NLM and of the National Commission on Libraries and Information Science Advisory Committee on a National Periodicals System, among other professonal committees and organizations.

Ms. Humpreys



Dr. Doszkocs

New SIS Branch Chief

Tamas E. Doszkocs, Ph.D., former Chief of the Technical Services Division, is returning to NLM's Specialized Information Services (SIS) component to head its Biomedical Files Implementation Branch.

Dr. Doszkocs has been with NLM since 1974. Until his appointment in 1979 as TSD Chief, he had had a variety of assignments within Specialized Information Services. These included participation in the development of the Laboratory Animal Data Bank, serving as Technical Director of the Systems Design and Management Branch (now called Biomedical Files Implementation Branch), and providing technical consulting services for the National Cancer Institute, the Smithsonian Science Information Exchange, and others. He received the NLM Regents' Award for Technical Achievement for his technical creativity in developing two experimental online bibliographic search tools—AID and CITE (*News*, November 1979). AID (Associative Interactive Dictionary) and CITE (Current Information Transfer in English) are innovative systems designed to assist users of TOXLINE, MEDLINE, and other data bases. Dr. Doszkocs will continue to explore these and other "user cordial" systems as his branch assists a variety of biomedical organizations in implementing their computer files.

New NLM Literature Searches

Fourteen bibliographies in the 1980 series of NLM Literature Searches may now be requested from the Library's Reference Section (see below). Literature Searches are printed bibliographies produced through MEDLINE on subjects of current interest. They are available without charge. (A complete list of titles appears in each issue of *Index Medicus* and *Abridged Index Medicus*.) When requesting Literature Searches, please include title and number, enclose a self-addressed gummed label, and mail to:

Literature Search Program
Reference Section
National Library of Medicine
Bethesda, Maryland 20209

LS 80-1 *Passive smoking*. January 1972 through September 1980. 162 citations.

LS 80-2 *Spinal cord injuries therapy and rehabilitation*. January 1977 through October 1980. 251 citations.

LS 80-3 *Elemental diet*. January 1975 through October 1980. 170 citations.

LS 80-4 *Cardiopulmonary Resuscitation (CPR)*. January 1977 through October 1980. 112 citations.

LS 80-5 *Drugs and the elderly*. January 1977 through October 1980. 287 citations.

LS 80-6 *Psoriasis therapy*. January 1977 through October 1980. 299 citations in English.

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LS 80-7 *Reye's Syndrome*. January 1975 through October 1980. 194 citations.

LS 80-8 *Vinyl chloride toxicology*. January 1977 through October 1980. 245 citations.

LS 80-9 *Benzene toxicology*. January 1977 through September 1980. 164 citations.

LS 80-10 *Amantadine and influenza*. January 1975 through October 1980. 114 citations.

LS 80-11 *Nurse practitioners and physicians' assistants*. January 1977 through October 1980. 193 citations.

LS 80-12 *Surgery and the elderly*. January 1977 through December 1980. 273 citations.

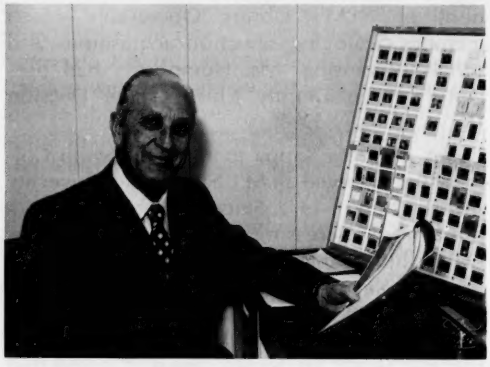
LS 80-13 *Adverse effects of intrauterine devices*. January 1975 through December 1980. 314 citations in English.

LS 80-14 *Inborn errors of metabolism in animals*. January 1977 through December 1980. 352 citations.

Libraries Issue Joint Statement on Microforms and AACR2

Because of the imminence of the adoption of the *Anglo-American Cataloguing Rules* (2nd edition), the Library of Congress, the National Agricultural Library, and the National Library of Medicine have made an interim decision about the cataloging of microforms that reproduce previously published books and serials. Such microform materials are currently being discussed in a debate between those who believe that the original publication should be emphasized, with data relating to the microform placed in a secondary position (essentially the AACR1 principle) and those who believe that the microform should be emphasized instead (essentially the AACR2 principle).

At the request of the Association of Research Libraries and other library groups, and pending a resolution of the problem, the Library of Congress, the National Agricultural Library, and the National Library of Medicine will continue to follow the AACR1 principle for bibliographic description when cataloging microforms for previously published books and serials. For choice and form of access points, however, the AACR2 principle will be applied.



Dr. Julio R. Meneghello (above) of Chile will be working for the next year with staff members of the National Medical Audiovisual Center's Materials Development Branch. Assisted by **Joseph P. Mingioli**, AV Production Officer, Dr. Meneghello will design, develop, and produce a series of model slide/tape sets to be used at the University of Chile in Santiago, where he is Professor and Chairman of the Department of Pediatrics. In addition to use within the University, the sets will also be used in the field with health educators. Dr. Meneghello is in the United States as a Pediatric Research Planning Officer assigned to the National Institute of Child Health and Human Development, NIH. His general area of concern is pediatric primary care, with special emphasis on nutritional problems.

Staff Honors

Four NLM employees received NIH Merit Awards at a ceremony held November 18 in the Library's Lister Hill Center building auditorium. The award is presented annually to a small number of National Institute of Health employees whose superior service and achievement warrant special honorary recognition.

The awardees were **Dorothy T. Hanks**, Reference and Acquisitions Librarian, History of Medicine Division, "for exemplary skill, intelligence, and courtesy she has consistently exhibited in providing public service to the patrons of the National Library of Medicine"; **Robert B. Mehnert**, Public Information Officer, Office of

the Director, "for meritorious contributions to the National Library of Medicine's Public Information Program which serves the nation's health sciences community"; **Norman L. Osinski**, Chief, Office of Contracts Management, Office of Administration, "for high productivity, work innovations, and effective management of the Office of Contracts Management, National Library of Medicine"; **Julia F. Sollenberger**, Librarian, Technical Services Division, Library Operations, "for dedicated efforts in planning, implementing, and administering the complex conversion of cataloging records to automated formats."

Electronic Document Storage and Retrieval

The Communications Engineering Branch of the Lister Hill Center has begun a program to design, develop, and evaluate an experimental system that will electronically store, retrieve, and display documents acquired by the Library. The long-term goal of the program is to introduce advanced technology to help the Library fulfill its mission as a national archive for biomedical literature, as well as its responsibility to maintain an interlibrary loan service. The latter is now accomplished by sending original volumes and photocopies by mail. The experimental system is to be developed and evaluated by pursuing three concurrent research projects—Document Capture, Data Transfer and Storage, and Document Display.

The Document Capture Project will develop techniques to electronically scan paper documents and film media containing textual and graphic material, and to digitize the analog electrical signals generated by the scanning process. Paper documents include both bound volumes and separate sheets of paper. The system will also be capable of accepting machine-readable data.

The Data Transfer and Storage Project will develop techniques to control the flow of the digital signals produced by the scanning and digitization processes as these signals are transferred to magnetic discs for temporary storage. This project will also implement the retrieval of data from magnetic disc storage for display as well as for processing prior to archival storage on high density optical discs. Compression is an example of such processing. The scanning and digitization processes deliver signals containing a considerable amount of redundancy; subjecting these signals to suitable forms of compression results in fewer bits that represent essentially the same amount of information. It is estimated that by using a compression ratio of 20:1, more than 500,000 journal pages may be stored on a single optical disc. Five such discs could store all of the journal articles and monographic chapters indexed in *Index Medicus* in 1979. A "jukebox" or disc pack containing 1000 discs could provide an online storage capacity of three to four million journal issues.

The Document Display Project will develop methods to display retrieved documents in both softcopy (electronic display) and hardcopy (paper) forms. Each form has its advantages. An attractive feature of hardcopy is that it may be retained as a permanent record. On the other hand, an advantage of softcopy is that the electronic screen may be reused for the rapid display of an indefinite number of images, facilitating, for example, browsing by users as well as monitoring for quality control during scanning and storage.

Although initially the three R&D projects will develop and integrate the components of an experimental system for evaluation within NLM, a follow-on phase is proposed to investigate disseminating the stored documents nationally. As presently envisioned, a local distribution network in the Washington metropolitan area will be the first objective of this project, while techniques will be investigated to achieve the long-range goal of delivering information nationally. These will depend in part on the availability of a national telecommunication network of broadband channels, such as the ones proposed for the 1980s by various commercial carriers.

Additional information is available from:

Communications Engineering Branch
Lister Hill National Center for
Biomedical Communications
National Library of Medicine
Bethesda, Maryland 20209

Associates Program Seeks Applicants

The Library is presently seeking applications from qualified librarians interested in its 1981-82 Library Associate Program in Medical Librarianship and Biomedical Communications (*News*, November 1980).

The program, which features specialized training in library management, information systems, communication networks, and medical librarianship, is open to new or recent library school graduates. Successful applicants are offered a one-year Federal Civil Service appointment at the GS-7 level ($15,193).

Qualifications include United States Citizenship, Masters Degree in Library Science or Information Science from an American Library Association accredited library school. An undergraduate degree in science is desirable.

The deadline for filing is March 1, 1981. Requests for application or further information should be sent by February 1 to:

Coordinator, Library Associate Program
National Library of Medicine
8600 Rockville Pike
Bethesda, Maryland 20209

Staff Notes

Gains

- Victor Carr, Education Specialist, Educational Training and Consultation Branch, NMAC
- Robert Cross, Program Analyst, Lister Hill Center
- Brenda Jones, Secretary, Computer Technology Branch, LHC
- Martha LeRoy, Secretary, Office of the Director
- Richard Wiles, Computer Programmer, Office of Computer and Communications Systems
- Patricia Williams, Administrative Officer, Specialized Information Services

Losses

- Lee Clune, Secretary, Office of the Director
- Nancy Fisher, Library Technician, Technical Services Division
- Joann Shields, Library Technician, Bibliographic Services Division
- Melissa York, Technical Information Specialist, Bibliographic Services Division

NLM in the Literature

The following citations were retrieved from the November/December MEDLINE file. They point to recent articles in which the National Library of Medicine (or its products and services) is discussed.

Cooper WG: The National Medical Audiovisual Center: in Bethesda. J Biocommun 1980 Jul;7(2):2-3

Corning ME: The United States National Library of Medicine's international relationships. Med Inf (Lond) 1980 Jan-Mar;5(1):3-20

The US National Library of Medicine (NLM) is a Federal institution which serves as a national resource with international impact. The global biomedical literature and that selected for Index Medicus is characterized by numbers of journals, country of origin, and language of publication. NLM's domestic responsibilities and international programmes are described. NLM's international relationships consist of MEDLARS co-operation, exchange programmes, services, a special foreign currency programme, technical consultation, co-operation with the World Health Organization (WHO) and the Pan American Health Organization (PAHO) and some special programmes vis-á-vis formal governmental bilateral agreements. A regional approach to the provision of medical library and health-information services is illustrated by the PAHO Regional Library of Medicine. The principles for the availability of MEDLARS internationally and the nature of the quid pro quo arrangements are presented.

Halpern J, Raclet M: Medical data-bases-telecommunications issues in the 1980s. Med Inf (Lond) 1980 Jan-Mar;5(1):99-105

This paper gives a brief description of the telecommunications problems encountered when accessing medical data-bases. In the first part of the article, the authors described how the creation of a special telecommunications working group at IMA (the French MEDLINE Centre) helped to handle and solve these problems. The second part shows how French users will be able to access new European data-bases; and discusses the changes brought about by the development of networks such as TRANSPAC and EURONET. It also compares the communications costs for all access configurations.

Hills S: Ideas for training teachers and search analysts using on-line services, arising from the training working group of the MEDLINE Workshop, 1979. Med Inf (Lond) 1980 Jan-Mar;5(1):21-7

The types of organization offering training courses in on-line information retrieval techniques are grouped into four broad classes: system suppliers and data-base owners, library schools, independent organizations and individuals within organizations. The form of courses offered by the suppliers of the National Library of Medicine's (NLM) data-bases in Europe and Australia, discussed at the MEDLINE Workshop held in Paris in June 1979, are described. NLM already has a large programme of continuing education for search analysts, but not very much has been attempted in Europe as yet, because the services are still comparatively new. The training needed for teachers of on-line services was briefly discussed at the MEDLINE Workshop. This training includes a knowledge of computerized techniques, details of the actual system and software, public speaking, the design of courses and lectures, and the design of documentation and aids. After being trained initially, a teacher also has to keep

up-to-date with changes made by the suppliers as well as developments in teaching. Seminars are proposed as a means of achieving this.

Kupiec JJ: Multi-file searching: a review of the current situation. Med Inf (Lond) 1980 Jan-Mar;5(1):75-83

This paper investigates the problems of multi-file searching, which have arisen from the recent expansion of data-bases. The papers presented on this theme at the recent European MEDLINE Workshop are summarized. Special emphasis is placed on the specificity of searching NLM files on ELHILL, based on a survey of their actual use among the French network of associate centres. Recommendations for improving multi-file searching in ELHILL are also listed.

Livesey JB: The use of intelligent terminals in MEDLINE training courses. Med Inf (Lond) 1980 Jan-Mar;5(1):35-9

A number of self-instructional packages for students at the School of Librarianship, Leeds Polytechnic are described. The teaching packages have been written for use with a Hewlett-Packard HP2645A 'intelligent' terminal and cover the use of the terminal, access to the host (BLAISE) and information retrieval from MEDLINE. In addition a questionnaire is available on the terminal to test the students' understanding of the BLAISE system and the MEDLINE data-base, the students' responses are monitored automatically by the terminal. A preliminary evaluation of the teaching packages is included, the general reaction of the users to the packages being favourable.

Lundberg VA, Fjällbrant N, Svartz-Malmberg G: Multi-media orientation and education programs for MEDLARS used the the Medical Information Center (MIC), Stockholm. Med Inf (Lond) 1980 Jan-Mar; 5(1):41-3

The Mediatron is a modified stereo-tape recorder which is designed to carry out simultaneous recording of audio-commentaries, trigger pulses for photographic slides, and digital signals from a computerized information-retrieval system. Two MEDLARS programs were produced: an orientation program and a self-instructional package. Technical procedures and experiences are briefly discussed.

Moya M: The evolution of the training policy at IMA. Med Inf (Lond) 1980 Jan-Mar;5(1):29-34

Training at IMA has been during the last years an expanding activity which reflects the growth of the French MEDLINE network. Initially, before 1973, when IMA was the only centre in France to have access to the MEDLARS system, courses were aimed at increasing the general level of awareness of the biomedical community. After decentralization of the on-line access, it has become necessary to train search analysts for future associate centres, and now IMA organizes two types of course, one for search analysts and one for non-searchers, librarian students or end-users such as researchers for instance. Details of these two kinds of training courses are outlined.

Pattison F, Picciano J: How to get an A on your term paper; or using the library to succeed. Imprint 1980 Aug; 3(11):36-8

Pinhas N: Data-banks: a comparative study of INSERM and NLM data-banks. Med Inf (Lond) 1980 Jan-Mar; 5(1):85-97

The two main types of computerized information systems at present available to users-bibliographic systems and data-banks-render different, though complementary services. While bibliographic systems retrieve citations, data-banks provide correct and precise items of information in reply to queries. The nature of these items can be numeric, alphanumeric, textual or factual. The object of this paper is to contribute to a definition of data-banks through a description and a comparison of two new banks: (a) BIR, the data-bank on research contracts financed by the French Ministry of the Environment, is a 'factual' bank designed by INSERM as both an information and a management tool for the use of researchers and administrators. (b) TDB, the Toxicology Data Bank developed by the National Library of Medicine, is a textual bank covering toxicological data taken from sources such as manuals and handbooks. It provides a summary of the state of knowledge on a given substance at a given time.

Rossignol J: Comments on an experimental end-user training course. Med Inf (Lond) 1980 Jan-Mar;5(1):71-3

The MEDLINE training course organized for users was based on the experience acquired by IMA from problem encountered in the user/system concerning: (a) The understanding of a computerized documentation system and its capabilitiesd. (b) The role of the computer, often over-estimated. (c) The user-search analyst interface, i.e. the role of the analyst, the necessity for the user to explain his question clearly and his real need for information. All these problems were discussed concretely with the help of specific searches presented by each of the participants.

Sturge-Moore L: On-line systems in the information process of INSERM researchers. Med Inf (Lond) 1980 Jan-Mar;5(1):53-70

The process by which biomedical researchers at INSERM search for the information they need in the course of their research work is described from the evidence of a two-part questionnaire-based survey. In particular, the specific problems involved in the use of on-line retrieval systems, such as MEDLINE, are investigated, with a view to improving and expanding the use of such systems. Owing to the very nature of documentation practices, the situation seems likely to evolve towards greater use of these systems in the future, but this evolution will remain slow.

Villebrun D: The need for end-user studies: IMA's experience. Med Inf (Lond) 1980 Jan-Mar;5(1):49-52

Since 1966 two main types of studies have been carried out at IMA: (a) Studies conducted before the implementation of MEDLINE, to investigate the information needs of future users. (b) Studies of the actual use of the system. The main results of these studies are presented.

Villebrun D: Survey of the information needs of MEDLINE end-users: report of the MEDLINE Workshop working group. Med Inf (Lond) 1980 Jan-Mar;5(1):45-8

During the 1979 Paris MEDLINE Workshop, a working group focused its attention on the following questions concerning end-users' needs: Who are MEDLINE users? How does one reach potential users and non-users? How does one educate end-users? Several recommendations were presented at the end of the session.